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RATE OF SPREAD OF TACK COAT

Name of the Client	AEE,Yalahanka Division BBMP. Banglore.
Name of Work	**"Improvements to roads and drains balance main and cross roads of Mathru Layout in wars no -04"**
Name of Agency	Sri. Venkatesh. V
Date of Testing	14-03-21

Test No.	Area Tested	Rate of spread Kg/m²	As Per MORTH Table 500-5	Remarks
1	Rate of Spread Test conducted for every 500 m² from area 0 to 5000 m²	0.25	**0.25 to 0.30 Kg/m²**	Satisfactory
2		0.26		Satisfactory
3		0.25		Satisfactory
4		0.26		Satisfactory
5		0.26		Satisfactory
6		0.25		Satisfactory

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TEST REPORT

GRADATION TEST ON WET MIX MACADAM

Name & Address of the Customer	AEE,Yalahanka Division BBMP. Banglore.
Name of Work	**"Improvements to roads and drains balance main and cross roads of Mathru Layout in wars no -04"**
Name of the Agency	Sri. Venkatesh. V
Date of Testing	14/03/2021
Technical Reference	IS : 2386(Part I)-1963 (Reaffirmed 2016)

	Sample-1		
IS Sieve Designation (mm)	**% By Weight Passing IS Sieve as per MORTH (4th Revision) Table 400-11 for WMM**	**Actual % By Weight Passing IS Sieve**	**Remarks**
53	100	**100**	**Satisfies the requirement**
45	95-100	**98.1**	
22.4	60-80	**75.6**	
11.2	40-60	**57.8**	
4.75	25-40	**36.4**	
2.36	15-30	**27.3**	
0.6	8-22	**19.2**	
0.075	0-8	**6.9**	

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TEST REPORT

DETERMINATION OF BINDER CONTENT FROM BITUMINOUS PAVING MIXTURE FOR QUALITY CONTROL - BITUMINOUS CONCRETE MIX-GRADE 2

Name & Address of the Customer	AEE,Yalahanka Division BBMP. Banglore.
Name of Work	**"Improvements to roads and drains balance main and cross roads of Mathru Layout in wars no -04"**
Name of the Agency	Sri. Venkatesh. V
Date of Testing	11/03/2021
Technical Reference	ASTM: D2172/D2172M-17 - Test Method A - Centrifuge Extraction

Specification: As Per MORTH (5th Revision) Table 500-17, Minimum Bitumen Content for BC Grade-2 is 5.4%

Sl. No.	Description	Values
1	Weight of bituminous mixture before extraction test, W_1 g	2000.0
2	Total Weight of mineral aggregate obtained from centrifuge extractor, W_2 g	1888.0
3	Total weight of Bitumen extracted from the mixture, W_3 g = (W_1-W_2) g	112.0
4	Bitumen content in %, (W_3/W_1) %	5.6

Remarks	**Satisfies the requirement**

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TEST REPORT

DETERMINATION OF BINDER CONTENT FROM BITUMINOUS PAVING MIXTURE FOR QUALITY CONTROL - BITUMINOUS MACADAM MIX-GRADE 2

Name & Address of the Customer	AEE,Yalahanka Division BBMP. Banglore.
Name of Work	**"Improvements to roads and drains balance main and cross roads of Mathru Layout in wars no -04"**
Name of the Agency	Sri. Venkatesh. V
Date of Testing	12/03/2021
Technical Reference	ASTM: D2172/D2172M-17 - Test Method A - Centrifuge Extraction

Specification: As Per MORTH (4th Revision) Table 500-4 BM-Grade -2, Bitumen Content for BM Grade-2 is 3.3 % TO 3.5 %		
Sl. No.	**Description**	**Values**
1	Weight of bituminous mixture before extraction test, W_1 g	**2000.0**
2	Total Weight of mineral aggregate obtained from centrifuge extractor, W_2 g	**1934.0**
3	Total weight of Bitumen extracted from the mixture, W_3 g = (W_1-W_2) g	**66.0**
4	Bitumen content in %, (W_3/W_1) %	**3.3**
Remarks		**Satisfies the requirement**

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TEST REPORT

GRADATION TEST ON BITUMINOUS MACADAM MIX GRADE - 2

Name & Address of the Customer	AEE,Yalahanka Division BBMP. Banglore.
Name of Work	**"Improvements to roads and drains balance main and cross roads of Mathru Layout in wars no -04"**
Name of the Agency	Sri. Venkatesh. V
Date of Testing	12/03/2021
Technical Reference	IS : 2386(Part I)-1963 (Reaffirmed 2016)

	Sample-1		
IS Sieve Designation (mm)	**% By Weight Passing IS Sieve as per MORTH (4th Revision) Table 500-4 for BM Grade-2**	**Actual % By Weight Passing IS Sieve**	**Remarks**
26.5	100	**100**	**Satisfies the requirement**
19	90-100	**98.8**	
13.2	56-88	**85.9**	
4.75	16-36	**32.1**	
2.36	4-19	**16.4**	
0.3	2-10	**8.5**	
0.075	0-8	**6.3**	

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TEST REPORT

COMPRESSIVE STRENGTH TEST ON CONCRETE CUBES

Name & Address of the Customer	AEE,Yalahanka Division BBMP. Banglore.
Name of Work	**"Improvements to roads and drains balance main and cross roads of Mathru Layout in wars no -04"**
Name of Agency	Sri. Venkatesh. V
Grade of Concrete	M-15
No. of cubes tested	3
Dimension of Specimen	150mmx150mmx150mm
Cross Sectional Area	22500 mm^2
Technical Reference	IS. 516-1959 (Reaffirmed 2013)

Sl. No.	Identification	Date of Casting	Date of Testing	Age at test (Days)	Weight (Kg)	Failure Load (KN)	Compressive Strength (N/mm^2)	Avg Compressive Strength (N/mm^2)
1	Covering slab	15/03/2021	12/04/2021	28	8.16	380	**16.89**	**17.26**
2					8.20	400	**17.78**	
3					8.21	385	**17.11**	

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TEST REPORT

GRADATION TEST ON COARSE AGGREGATES 20mm ↓ Graded

Name & Address of the Customer	AEE,Yalahanka Division BBMP. Banglore.
Name of Work	**"Improvements to roads and drains balance main and cross roads of Mathru Layout in wars no -04"**
Name of the Agency	Sri. Venkatesh. V
Date of Testing	08/03/2021
Specific Gravity	**2.63**
Water Absorption	**0.31%**
Technical Reference	IS : 2386(Part I)-1963 (Reaffirmed 2016), IS : 2386 (Part III)-1963 (Reaffirmed 2016)

IS Sieve Designation (mm)	**Sieve Analysis (% Passing IS Sieve)**	**Grading Requirement as per IS 383 : 2016**	**Remarks**
40	**100**	100	**Satisfies the requirement**
20	**97.3**	90-100	
10	**50.6**	25-55	
4.75	**8.9**	0-10	

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TEST REPORT

GRADATION TEST ON COARSE AGGREGATES 40mm ↓ Graded

Name & Address of the Customer	AEE,Yalahanka Division BBMP. Banglore.
Name of Work	**"Improvements to roads and drains balance main and cross roads of Mathru Layout in wars no -04"**
Name of the Agency	Sri. Venkatesh. V
Date of Testing	08/03/2021
Specific Gravity	**2.62**
Water Absorption	**0.30%**
Technical Reference	IS : 2386(Part I)-1963 (Reaffirmed 2016), IS : 2386 (Part III)-1963 (Reaffirmed 2016)

IS Sieve Designation (mm)	Sieve Analysis (% Passing IS Sieve)	Grading Requirement as per IS 383 : 2016	Remarks
80	**100**	100	**Satisfies the requirement**
40	**95.6**	90-100	
20	**66.8**	30-70	
10	**32.3**	10-35	
4.75	**4.2**	0-5	

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TEST REPORT

GRADATION TEST ON FINE AGGREGATES

Name & Address of the Customer	AEE,Yalahanka Division BBMP. Banglore.
Name of Work	**"Improvements to roads and drains balance main and cross roads of Mathru Layout in wars no -04"**
Name of the Agency	Sri. Venkatesh. V
Date of Testing	08/03/2021
Specific Gravity	**2.59**
Technical Reference	IS : 2386(Part I)-1963 (Reaffirmed 2016), IS : 2386 (Part III)-1963 (Reaffirmed 2016)

Sample	IS Sieve designation (mm)	Sieve Analysis (% Passing IS Sieve)	Grading Requirement as per IS 383 : 2016				Grading Zone	Remarks
			ZONE-I	ZONE-II	ZONE-III	ZONE-IV		
Crushed Stone Sand	10	**100**	100	100	100	100	II	Satisfies the requirement
	4.75	**98.5**	90-100	90-100	90-100	95-100		
	2.36	**86.7**	60-95	75-100	85-100	95-100		
	1.18	**74.4**	30-70	55-90	75-100	90-100		
	0.6	**48.2**	15-34	35-59	60-79	80-100		
	0.3	**28.6**	5-20	8-30	12-40	15-50		
	0.15	**16.7**	**0-20***	**0-20***	**0-20***	**0-20***		

► ***For Crushed Stone Sand the permissible % passing on upper limit for 150μ IS Sieve is increased from 10 for Zone I,II,III & 15 for Zone IV, to 20%**

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TEST REPORT

TEST ON CEMENT

Name & Address of the Customer	AEE,Yalahanka Division BBMP. Banglore.
Name of Work	**"Improvements to roads and drains balance main and cross roads of Mathru Layout in wars no -04"**
Name of the Agency	Sri. Venkatesh. V
Date of Testing	08/03/2021
Grade & Brande	53

Tests	Test Method As Per IS & Apparatus		Results		Requirements as per IS 12269:1987	Remarks
	IS Code	Method	Value	Unit		
Initial Setting Time	IS-4031 (Part-5) 1988	VICAT	48	min	Not Less Than 30 Minutes	Satisfies Requirement
Final Setting Time	IS-4031 (Part-5) 1988	VICAT	487	min	Not More Than 600 Minutes	Satisfies Requirement
Soundness	IS-4031 (Part-3) 1988	LE-CHATELIER	3	mm	Not More Than 10 mm	Satisfies Requirement

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TEST REPORT

GRADATION TEST ON BITUMINOUS CONCRETE MIX GRADE - 2

Name & Address of the Customer	AEE,Yalahanka Division BBMP. Banglore.
Name of Work	**"Improvements to roads and drains balance main and cross roads of Mathru Layout in wars no -04"**
Name of the Agency	Sri. Venkatesh. V
Date of Testing	11/03/2021
Technical Reference	IS : 2386(Part I)-1963 (Reaffirmed 2016)

	Sample-1		
IS Sieve Designation (mm)	**% By Weight Passing IS Sieve as per MORTH (5th Revision) Table 500-17 for BC Grade-2**	**Actual % By Weight Passing IS Sieve**	**Remarks**
19	100	**100**	**Satisfies the requirement**
13.2	90-100	**96.3**	
9.5	70-88	**83.4**	
4.75	53-71	**68.2**	
2.36	42-58	**54.9**	
1.18	34-48	**46.1**	
0.6	26-38	**35.6**	
0.3	18-28	**26.4**	
0.15	12-20	**18.2**	
0.075	4-10	**8.2**	

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